CHAPTER IV.

AGRICULTURE.

Chapter IV. Agriculture.

ACCORDING to the 1881 census, agriculture supports about 600,000 people or sixty-eight per cent of the population. The details are:

Dhárwár Agricultural Population, 1881.

AGE.	Males.	Females.	Total.
Under Fifteen ...	117,227	111,979	229,206
Over Fifteen ...	187,850	192,088	379,938
Total ...	305,077	304,067	609,144

HUSBANDMEN.

Dhárwár husbandmen are Lingáyats, Maráthás, Musalmáns, Bráhmans, Kurubars, Lavánás or Lambánis, and Mhárs. Of these the Lingáyats are by far the richest and most important. The headmen of villages are usually Lingáyats, and the Lingáyats form the bulk of the cultivators of Dhárwár, as Marátha Kunbis form the bulk of the cultivators of Khándesh, Násik, and the North Deccan. The Lingáyat husbandman differs both in body and mind from the Marátha husbandman of the North Deccan. He is a South Indian with a smaller northern strain even than the Marátha. He is larger stronger and blacker, a harderworker, with more forethought and with a strong turn for trade speculation.[1] He is well disposed, intelligent, and enterprising, and is shrewder than a casual observer would imagine. As a body Dhárwár Lingáyat husbandmen are better off than north Deccan Kunbis, and very much freer from debt. They have passed through many changes within the last hundred years. To them, which it was not to the north Deccan Kunbi, who had his share of the spoil, Marátha rule was an unmixed evil. For many years after the introduction of British peace and order the curse of rack-renting handed down by the Maráthás kept the husbandman deep in poverty. With the introduction of the revenue survey and the opening of roads between 1840 and 1850 their state improved. Between 1862 and 1871 came the great rise in value of all field produce, especially of American or saw-ginned Dhárwár cotton, which alone, according to Mr. Walton, in those ten years enriched the district by about £8,150,000 (Rs. 8,15,00,000). Between 1862 and 1865, no less than £4,700,000 (Rs. 4,70,00,000) or a yearly average of £1,175,000 (Rs. 1,17,50,000) were amassed by the growers and dealers in Dhárwar American cotton.[2] Dealers

[1] Bom. Gov. Sel. CXLVIII. 96-97. [2] Walton's Dhárwár Cotton, 73.

backed by Bombay speculators paid as much as £10 (Rs. 100) the acre for planted cotton fields. The flood of wealth turned the people's heads. They did not know what to do with their money. At village festivals, numbers of landholders appeared with carts the naves of whose wheels were rounded with bands of silver.[1] Since 1871 many have impaired those gains by unwise cotton speculation, by extravagance, and by mismanagement. At the same time the price of cotton has fallen; years of scarcity and famine have wasted the district; and revised settlements have greatly added to the land tax. Still in spite of their loss and suffering from the 1876 famine the mass of the husbandmen of the cotton plains are (1884) well-to-do. Many Lingáyat husbandmen have large holdings. In the north Deccan the business of tilling the soil and of trading in its produce as a rule are distinct; in Dhárwár the two are to a large extent united. Not only does the landholder often take his produce to distant Kárwár or Kumta, he either brings back goods for the sake of the hire, or himself invests in such coast produce as finds a a ready inland sale. Many Lingáyat landholders are moneylenders and cotton ginners, and many among them hoard stores of grain, which they sell at a high profit in times of scarcity. They generally keep a small staff of permanent farm servants to plough and look after their cattle, and at times temporary labour is largely employed for weeding and reaping.

Colonies of Maráthás are mixed with Lingáyats in many parts of the district, and scattered Marátha families also occur in a large proportion of villages. The Maráthás seem less well off than the Lingáyats and have less the knack of making money by moneylending, grain dealing, and cotton trading. The protection to creditors given by the civil courts is said to be the cause of the indebtedness of the poorer husbandmen, but indebtedness is less general than among north Deccan husbandmen. Musalmán husbandmen, of whom there are many, as a rule, have small holdings, and are not prosperous. Bráhman husbandmen are few, though a good many Bráhman pleaders and retired Government servants invest their savings in buying the occupancy right of fields. These Bráhman landholders do not till with their own hands. They either let the land or have an agent to manage its tillage. If the land is let the tenant pays the over-holder sometimes in money and sometimes in grain. If, as is the rule when the overholder is an absentee, the rent is paid in money, it amounts to two or three times the Government assessment. When the rent is paid in kind the tenant does not pay the Government assessment unless he is bound to pay it by a previous contract. As a rule the landlord recovers from the tenant one-third to one-half of the whole produce. The Kurubars or Shepherds and the Bedars or Hunters and now watchmen, form a considerable section of the husbandmen. As husbandmen they are careless and stupid, content with small results, and seldom rich or prosperous. A few of the wild pack-bullock and

[1] Bom. Gov. Sel. CXLVIII. 104.

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wood-cutting Lavánás or Lambánis, hold land in the west of the district, and here and there a few Holáis or Mhárs cultivate.[1]

For tillage purposes the district is divided into the *malládu* or *malnád* that is the damp west and the *beilu shime* or dry east. The *malládu* is the tract on the border of the Kánara forests in the west and south-west of the district. It is subject to frequent and heavy rain. It is most favourable to the growth of rice and sugarcane, which, to succeed at all, must have abundant moisture. In these western lands the usual dry-crops of the open eastern plain are seldom grown. The only dry-crops are the coarse hill grains, *rági* Eleusine corocana, *sáve* Panicum miliare, *navani* Panicum italicum, and *jola* Sorghum vulgare. Of these *rági* and *sáve* are grown in comparatively small quantities, and *navani* and *jola* are sown only in two or three fields in a village and often not at all. In the *beilu shime* or dry eastern plain rice is seldom or never grown and sugarcane is grown only as a garden crop. The soil is best suited for dry-crops especially for cotton, gram, and wheat. Along the eastern fringe of the wet west lands, through the whole length of the district, from north-west to south-east including the towns of Dhárwár Hubli Bankápur and Kod, runs a belt of country which as regards soil climate and vegetation unites the characteristics of the moist hilly west lands and the dry eastern plains. In this transition region the soil is generally a reddish alluvial clayslate crossed here and there in an easterly direction by narrow belts of black cotton ground. This black soil is of superior richness probably owing to the mixture of particles of red soil, which, without changing the appearance and character of the black soil, lessen its clayeyness and increase its power of taking in water. Towards the east of this belt the rainfall is too scanty and uncertain for the growth of rice. So, also, towards the south-west the climate becomes too moist for dry-crops, and *rági* and other poor grains take the place of millet. In parts of this transition tract, dry and wet crops are often sown in the same field, so that, if the season proves too dry for rice, a crop of millet may save the landholder from complete loss. In Kod and Hángal in the south of this tract a number of large lakes water much rice and garden land. In some villages, on the eastern border of this tract, tobacco grows freely; in others the cultivation of chillies is carried on with great success. In the *malládu* or rain-land, wherever the underlying laterite does not rise to the surface, the soil is good. The best soil called *kagadali* is a red mould formed of a fine iron-bearing gravel mixed with quartz pebbles and clay slate. Where the chlorite schists and clay slates predominate the soil is a light coloured loam of great depth called *jeddi mannu*. When untilled for many years the red soils often assume a most deceiving appearance. The surface soil is washed away and either a coating of loose gravel and quartz stones, or a thin layer of hardened clay is left into which water hardly passes and on which even grass hardly grows. The soil close under the surface, if long undisturbed, becomes hard and dense and seems almost proof against water. But after the merest surface scratching, the rain is able to

[1] Chiefly from materials supplied by Mr. F. L. Charles, C.S.

remain on the surface and soften the under soil, which can be deeply ploughed with the greatest ease, and, with a little manure, is extremely fertile. The light soil or *jeddi mannu* is the true rice soil. The earthy matter of this rice soil, as in west Bankápur, is chiefly decayed clay slate. By the action of water, tillage, and weather, it becomes a stiff, compact, light-coloured clay, so retentive of moisture, that in most of the lower lands water is found throughout the year a few feet below the surface. The soil on the highest and most open lands has little depth, and, even with manure and care, yields only one poor crop of rice in the year. Between the highest and the lowest situations, the soils are fairly deep, and, in seasons of abundant or even of average rainfall, generally hold moisture enough to yield a crop of pulse after the main rice harvest is over. The soil in the valleys or low lands is of superior richness. It is black or a rich dark brown and may almost be classed under the head of alluvium. This soil yields luxuriant after-crops, and its abundant moisture makes it specially suited for sugarcane. The best rice land is in several respects more valuable than the black cotton soil. The best rice land has much moisture, while the cotton land has no means of irrigation; the best rice land only occasionally wants manure, the cotton land wants manure every third year; the rice land seldom wants the labour and cost of ploughing, the cotton land must be ploughed every year. The best black soil sometimes yields a second crop, the best rice soil always yields a second crop and this with less labour than the black soil. To prepare the black soil for a second crop it has to be ploughed, broken by the *kunti* or heavy hoe, levelled with the *ballesal kunti* or light hoe, sown with the seed drill or *kurgi*, and once more levelled with the light hoe. In the best rice land the field is simply ploughed once, is closely sown by the hand, and to cover the seed the *korudu* or leveller is run over the surface.

By far the greater part of the open country is black ground or *yeri bhumi*. Its qualities are admirably suited to the dry climate of the tableland. Its great power of holding moisture enables its crops to bear unharmed seasons of drought which would prove fatal to any crop on the red soil. In these black soils nature to a great extent does what in other soils is left to the plough. In the hot weather, as the soil shrinks, it becomes fissured with cracks, two or three inches wide and about eighteen inches deep which divide the surface into blocks two to three feet square. The first heavy rainfall washes the surface soil into these cracks, and fills them removing the surface soil and exposing a fresh under-layer. Except sometimes in fields intended for cotton, instead of the plough the people use the heavy hoe or *kunti* drawn by two or four bullocks. This loosens the surface three or four inches deep and uproots what weeds there are though weeds are few in cleanly kept fields. Rain loosens the soil to a considerable depth and this scarping is enough in ordinary years. Once in six, seven, or eight years the plough is used to uproot deep-seated heavy weeds and to disturb the subsoil. When it gets covered with matted grass and *bábhul* scrub the surface becomes cut in deep water runs and pitted with holes and cracks. It is also covered with minute lime nodules which as they show

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through the grass make the soil look white and glary. The chief black-soil crops are cotton, wheat, gram, oilseeds, and the later varieties of Indian millet. Except a few gardens at Annigeri in Navalgund, and some other villages with patches of brown soil no watered land occurs over the whole black plain. To the general black soil character of the eastern plain the Kappatgudd hills form an exception. There the soil is stony red alluvial called *kennela* or *musári* somewhat like the reddish soils of the hills near Dhárwár and Hubli. Similar soil occurs among the granite ranges and rocks to the south-west of the Kappatgudd range towards the Varda river. In the east of Ránebennur is much stony and unarable soil called *kallunela* or *dáre* in which angular nodules of stone lie so close packed that the plough can hardly enter.

Arable Area.

Of an area of 4612 square miles or 2,953,037 acres, 2,858,678 acres or 96·80 per cent have been surveyed in detail. Of these 169,738 acres or 5·93 per cent are the lands of alienated villages. According to the revenue survey, the rest contains, 2,271,057 acres or 79·44 per cent of arable land; 42,882 acres or 1·50 per cent of unarable; 47,168 acres or 1·65 per cent of grass or *kuran*; 176,606 acres or 6·17 per cent of forest; and 151,227 acres or 5·29 per cent of village sites roads and river beds. Of the 2,271,057 acres of arable land in Government villages 621,294 or 27·36 per cent are alienated. In 1882-83 of the arable area of 1,652,216 acres in Government villages, 1,503,011 acres or 90·97 per cent were held for tillage. Of this 6963 or 0·46 per cent were garden land; 86,873 acres or 5·77 per cent were rice land; and 1,409,175 acres or 93·75 per cent were dry-crop land.

Holdings.

In 1882-83 the total number of holdings was 77,478 with an average area of about twenty-eight acres. Of the whole number 7675 were holdings of not more than five acres; 11,937 were of six to ten acres; 22,575 of eleven to twenty acres; 26,976 of twenty-one to fifty acres; 6145 of fifty-one to one-hundred acres; 1674 of 101 to 200 acres; 294 of 201 to 300 acres; 94 of 301 to 400 acres and 108 above 400 acres. The details are:

Dhárwár Holdings, 1882-83.

Sub-Division.	Up to 5 Acres.	6 to 10 Acres.	11 to 20 Acres.	21 to 50 Acres.	51 to 100 Acres.	101 to 200 Acres.	201 to 300 Acres.	301 to 400 Acres.	Above 400 Acres.	Total.	Rental.	Area.
											£	Acres.
Dhárwár ...	778	1335	2710	2194	398	67	14	7	8	7511	27,790	170,683
Hubli ...	432	667	1649	2186	557	153	27	5	8	5684	25,822	180,625
Navalgund ...	546	1101	2764	4023	989	308	61	22	31	9845	38,306	346,250
Gadag ...	339	961	2782	4290	1148	350	63	23	25	9981	25,860	335,411
Bankápur ...	741	1036	1692	1936	426	127	26	7	6	5997	19,996	176,149
Ránebennur ...	336	684	1624	2237	480	108	6	4	...	5479	16,270	151,937
Hángal ...	1340	1361	1697	1339	248	76	12	2	...	6075	18,549	113,587
Karajgi ...	430	809	1971	2627	603	145	29	7	9	6630	19,599	200,640
Kalghatgi ...	962	1467	1519	1080	184	52	4	2	3	5273	12,731	91,606
Kod ...	1445	1869	2623	2568	343	56	8	...	1	8913	18,376	169,194
Ron ...	326	647	1544	2496	769	232	44	15	17	6090	16,421	220,806
Total ...	7675	11,937	22,575	26,976	6145	1674	294	94	108	77,478	239,720	2,156,888

Stock.

In 1882-83 the farm stock included 40,872 carts, 89,323 ploughs, 258,510 bullocks, 151,379 cows, 40,523 he-buffaloes, 83,452 she-buffaloes, 5478 horses including mares and foals, 6819 asses, and 231,125 sheep and goats. The details are: